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ABSTRACT

This paper, which concerns changes in beliefs of parents whose children were making the transition from elementary to junior high school, describes changes in parents' (1) perceptions of their children's abilities and effort in English, math, social activities, and athletics; (2) expectations for their children's performance in each of the four domains; and (3) beliefs regarding their own efficacy and modifiability of ability in the domains. Different types of change patterns related to each set of beliefs are pointed out. Discussion also focuses on how the nature of the change in parents' perceptions of their children's abilities varied with both the children's math ability levels and the changes in the children's assignment to different types of math classes. Data were collected from parents in the fall and spring of children's years in 6th and 7th grades. Teachers rated students' math ability in the 6th grade. Various wave trends, including semester, year, and within-year changes, were analyzed. Findings indicated that children's transition to junior high school affected parents' ability estimates in English and math, with effects for math depending on children's ability in the subject. At the beginning of junior high, parents' ratings of the ability of low ability children increased, and their ratings of high ability children decreased. Parents' ratings were similar to students', and fathers' ratings were similar to mothers'. (RH)

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Changes in Parents' Beliefs and Values During their Children's Transition to Junior High School

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In C. Midgley (Chair), Early Adolescence: Schooling, Psychological, and Social Transitions. Symposium conducted at the annual meeting of the American Educational Research Association, Washington, D.C., April, 1987.

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Changes in student and teacher beliefs across the transition to junior high school were described by Feldlaufer and Midgley (1987), Reuman, MacIver, Eccles, and Wigfield (1987) and Eccles, Wigfield, Reuman, and MacIver (1987). This paper summarizes the major changes in parents' beliefs across the junior high school transition. The goals of the paper are:

1. To describe the major changes in parents' perceptions of their children's abilities and effort in math, English, social activities and athletics.

2.To describe changes in parents' expectations for their children's performance in each of these domains.

3.To describe changes in parents' beliefs regarding their own efficacy and the modifiability of ability in each of the domains. Modifiability of ability refers to how changeable parents think ability is with time and effort.

4. For each of these four sets of beliefs, different types of change patterns will be pointed out. Like the other papers in this symposium (Reuman et al., 1987; Eccles et al., 1987), some of the changes in parent beliefs seem to occur between waves 2 and 3 (between the end of 6th grade and the beginning of 7th grade), while others reflect more dramatic within year changes during the seventh grade than during the sixth grade.

Since parents, unlike the children, do not experience the junior high school environment directly, we expected to find more instances of the second type of change for parents' perceptions of their children's abilities and effort and for parents' expectations regarding their children's performance in the various domains. We expected that changes in these beliefs would result primarily from a shift in their child's grades and from hearing their children's comments about their own abilities. Since Wave 3 data was gathered early in the 7th grade year, neither of these pieces of information would have had an impact on the parents' by Wave 3.

We had less definitive hypotheses regarding the nature of change in parents' beliefs about modifiability of ability and confidence in their own ability to influence their children's performance, since changes in these beliefs could result from either stereotypes parents hold about early adolescent children or from the two sources of information I just described.

In addition, since we were only able to measure these two beliefs at one wave each year, we will be unable to describe the nature of the change with

enough precision to distinquish between within year and between year changes.

5. We will discuss how the nature of the change in parents' perceptions of their children's abilities varies depending on the children's math ability level, and on changes in the children's assignment to specific types of math classes. As was true in the paper by Eccles et al. in this symposium, we expected that parents of low math ability children might compensate in their estimates of their children's social or athletics skills leading to a different pattern of change for the various domains.

Our predictions regarding the impact of assignment to different types of ability grouped math classes were less definitive than Reuman et al.'s. It was not clear to us whether parents' beliefs would mirror those of their children or would be more influenced by the labeling process. Children's beliefs seemed to represent social comparison influences in that the beliefs of children moving into high ability classrooms declined while the beliefs of children moving into low ability classrooms increased, in both cases presumedly because the children now had a more select set of students to compare themselves with. Parents don't experience these changes directly. They do however, experience the labeling of their children by the school as high, average, or low math students and they experience their children's discussions of their experiences in class and their children's report card grades. Since these three sources of information may be discrepant with each other it was not clear how parents' would respond.

Methods

Data were collected from parents at the same four time points as students (see Reuman et al., 1987) - in the fall and spring of 6th grade and fall and spring of 7th grade. Only parents of children making the junior high school transition were included in the following analyses. For the most part, mothers and fathers ratings are for the same children, with father ratings representing a subset of the children rated by mothers, since more mothers responded than fathers. Ability ratings of the students in math were obtained from teachers in 6th grade.

Repeated measures multivariate analyses of variance were used to test for various wave trends mentioned briefly in the introduction and described by Reuman et al. and Eccles et al. in this symposium (e.g. semester changes that occur from the fall to the spring in both 6th and 7th grade, year changes that occur between 6th and 7th grade, and year by semester changes that

indicate changes within either the 6th or the 7th grade year). Results will be presented separately for mothers and fathers, and where wave trends differ for children of different ability levels, this will be noted.

There were some main effects of child sex and ability rating of teacher on the variables of interest. These are summarized in Table 1. The differences are ones you would expect based on stereotypes of the different groups; thus, they will not be covered in detail here. Additionally, there are often effects of domain on parents' ratings that are stronger than the wave effects. For the most part, however, we will be discussing the wave effects, and domain effects as they interact with wave, with only brief comments about domain contrasts.

Results

I. Parent's ratings of child's ability - math, English, sports, and social (measured at 4 waves)

Figure 1 shows the significant wave trends for mothers in their ratings of their child's ability in math, English, sports, and social activities. In English there is a decline across all four waves, with the greatest drop occurring between grade 6 and grade 7 (an example of a year effect). Ability ratings in sports also decline across wave: they drop most sharply after the beginning of grade 6, but continue to decline through 7th grade, levelling off somewhat during the 7th grade (a year by semester effect since what happens in 7th grade is different from what happens in 6th grade).

The main effects of wave were not significant for math or social ability ratings. However, there were interactions of teachers math ability rating and wave in these domains. In figure 2, you can see that wave effects in math differ for low, medium, and high math ability students. For children rated low and high in math by their teachers, there is a significant year effect in mothers' ability ratings. But the effects go in different directions. For low children, mothers' ability ratings increase after the transition, and for high children, mothers' ratings decline. Especially for low children, however, it appears that the rise is transitory, as mothers' ratings at wave 4 are as low as they were at wave 2.

Figure 3 shows mothers' ratings of math ability broken down by change in ability grouping (whether the child moved to high, average, or low classrooms in junior high school, or remained in classrooms that did not group). The same pattern occurs as did with children (Reuman et al., 1987) : for children who move into high math classes, mothers' ability rating at

wave 3 drops and for children who move into low classes, ability rating at wave 3 increases. At wave 4, especially for the children in low classes, this ability rating returns to a level closer to what it was before the transition. Since children in low classrooms feel better about their ability at wave three and children in high classrooms feel worse about their ability (Reuman et al., 1987), parent wave 3 ratings appear to be a reflection of children's feelings. By wave 4, their ratings may reflect performance and grades over the year, thus increasing again for high classroom students and decreasing for low classroom students.

For the social domain, the interaction of math ability rating and wave is shown in figure 4. First notice the main effect of math ability level: low math children are rated higher in social ability by their mothers than other children. In addition, although there is a slight drop in social ratings between waves 2 and 3 for all children, it is only for children rated medium or high in math that ratings of social ability remain at this lower point For children rated low in math, mothers' ratings of social ability increase between waves 3 and 4. It seems that for low math ability children, mothers are compensating, and the compensation becomes stronger at the junior high school level.

For fathers, the results concerning ability ratings in the four domains are similar but not exactly the same. Figure 5 shows the significant mean decline across waves that occurs in all domains. And in the case of fathers, the only significant interaction with ability is in the physical domain (see Figure 6). For children rated as low ability in math, ratings of ability in sports increase sharply (this time during the 6th grade), and stay relatively high after that. For medium ability students, there is a drop in ability ratings during the same time, and then ratings stay at this lower level. For high ability math students, physical ability ratings also decline, but the largest drop occurs after 6th grade and there is an upturn again at the end of 7th grade. This interaction is similar to that found in mothers with the social domain - mothers rate low math ability children higher in the social domain, and fathers do the same in the sports domain.

II. Parent Expectancies for success - math, English, and social (measured at waves 2 and 4)

The results for parents' expectancies for their children's success in each of the three domains where it was measured (math, English and social) parallel the findings for ability ratings. These results are not covered in detail for this reason.

III. Parent's ratings of effort required by the child to succeed - in 4 domains (measured at 4 waves)

Ratings of effort required by the child to succeed were measured in all 4 domains at 4 waves. Mothers' ratings of the effort required to succeed in a particular domain change over waves for both the physical and social domain, and this is shown in Figure 7. For sports there is an increase between 6th and 7th grade, and relative stability during 7th grade. Ratings of social effort showed a significant increase during both the 6th and 7th grade year. This increase, however, is most marked in the 6th grade. Effort required in math and English stay the same across the four waves.

In figure 8, you can see that fathers also perceived no change in the effort required in math or English; in addition they perceived no change in the social domain. In sports, however, ratings of effort required drop at wave 2 and increase again at waves 3 and 4. In this case, what is happening over the 6th grade year (effort required drops) is different from what happens over 7th grade (effort required increases).

IV. Parent's ratings of the modifiability of ability - math, English and social (measured at waves 2 and 4)

Figures 9 and 10 show the results for parents' ratings of modifiability of ability, measured in the math, English, and social domains at waves 2 and 4. Here is an example of a striking domain contrast, with math seen as more modifiable than English, which is in turn more modifiable than social ability. More will be said about this later. In terms of wave changes, there is a significant decrease in parents' ratings of modifiability of ability from wave 2 to 4, but only for math. Both mothers and fathers think math ability is less modifiable at wave 4.

V. Parent's feelings about their own ability to influence their children's performance - Math, English, and sports (measured at waves 1 and 3)

Parent's feelings about their ability to influence their children's performance were measured in math, English and sports at waves 1 and 3. Figures 11 and 12 show the same domain contrast occurs as with the modifiability of ability ratings, with parents feeling more efficacious in math and English than sports. These contrasts are interesting in light of cross-cultural findings that American parents believe less in changeability of academic ability than Japanese parents. Our data suggest, in contrast, that

American parents believe academic abilities are more changeable (and that parents can have a greater role in changing them) than non-academic abilities.

Returning to wave changes, Figure 11 shows that mothers' feelings of efficacy decline from wave 1 to wave 3 in all domains. Fathers (figure 12) also have declining feelings of efficacy that are similar in all three domains.

Discussion

In summary, we find evidence for effects of the junior high school transition on parents' ability estimates in English and math, with the effects for math depending on the child's ability in math. At least at the beginning of junior high school, parents' ratings of the ability of low ability children increase, and their ratings of high ability children decrease. These results parallel findings in the students themselves, and may, therefore, reflect the child's communication to the parents about how he or she is feeling about his or her own ability. This is supported by the fact that parent estimates at wave 4 increase somewhat for high children and decrease again for low children. From elementary to junior high school we also find an increase in parents' estimates of effort required in sports. Decreases occur in estimates of how modifiable their child's ability is in math and the influence they feel they can have on their child concerning math, English, and sports. Since modifiability of ability and efficacy were only measured once before and once after the transition, we cannot be sure if the effects are due to the junior high school transition or due to a general decrease with time.

Effects that are different in the 7th grade than they are in the 6th grade include mothers' ratings of their children's social ability when those children are low in math ability and effort that fathers' see as needed in sports. Mothers' social ability ratings for low math ability children increase during the 7th grade year only, as do fathers' ratings of effort required in sports.

The results we obtain for parents, interestingly, are quite similar to the results for students. As I mentioned in the introduction, we had expected that perhaps there would be a lagged effect for parents, since they do not experience the junior high environment directly, but rather through communication with their children and through grades. However, for the most part, effects found in parents occur at the same time as they do for children.

We also find a great deal of similarity between mothers and fathers, except in cases where compensation seems to be taking place for children

with lower math ability. In this case, mothers and fathers compensate differently, and in line with what one might expect based on stereotypes. Mothers rate low math ability children higher in the social domain, and fathers do the same in the physical domain.

Another striking absence of effects occurs with regard to child sex. Although we find main effects of child sex, there are few interactions of child sex and wave. In other words, although boys and girls may be rated differently by parents on the constructs we measured, those differences do not increase or decrease over this two year period.

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Table 1. Summary of Between Subject Effects

CONSTRUCT	DOMAIN	CHILD SEX	MATH ABILITY LEVEL
Ability Rating	Math	n.s.	low < med < high
	English	F > M*	low < med < high
	Sports	M > F	n.s.
	Social	n.s.	low > med > high*
Effort Required	Math	F > M*	low > med > high
	English	M > F*	low > med > high
	Sports	F > M	n.s.
	Social	n.s.	low < med < high*
Expectancies	Math	n.s.	low < med < high
	English	F > M	low < med < high
	Social	n.s.	n.s.
Modifiability of Ability	Math	F > M*	low < med < high
	English	F < M	low > med > high
	Social	n.s.	n.s
Efficacy	Math	F > M*	n.s.
	English	n.s.	n.s.
	Sports	F < M	n.s.

* Difference is only significant for mothers.

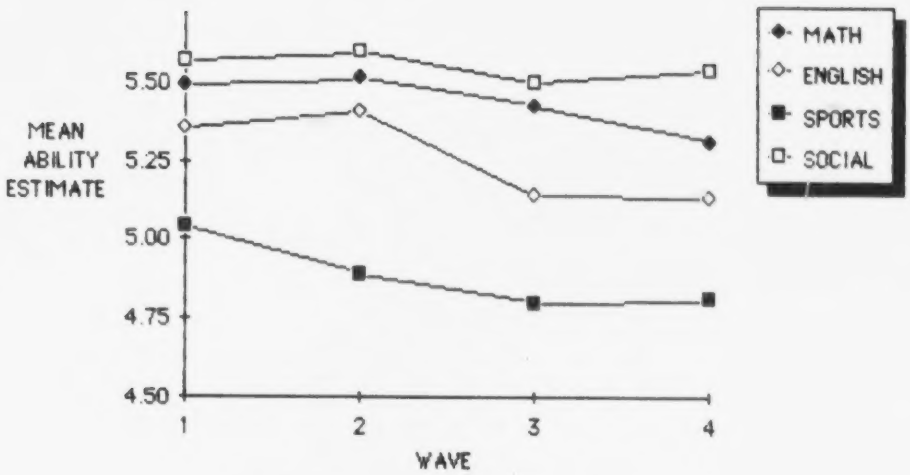


FIGURE 1. MOTHERS' ABILITY RATINGS
(N=640)

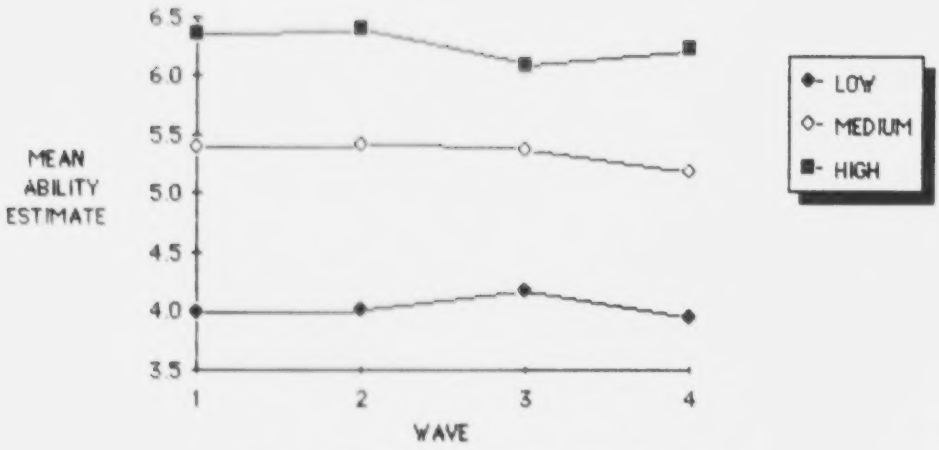
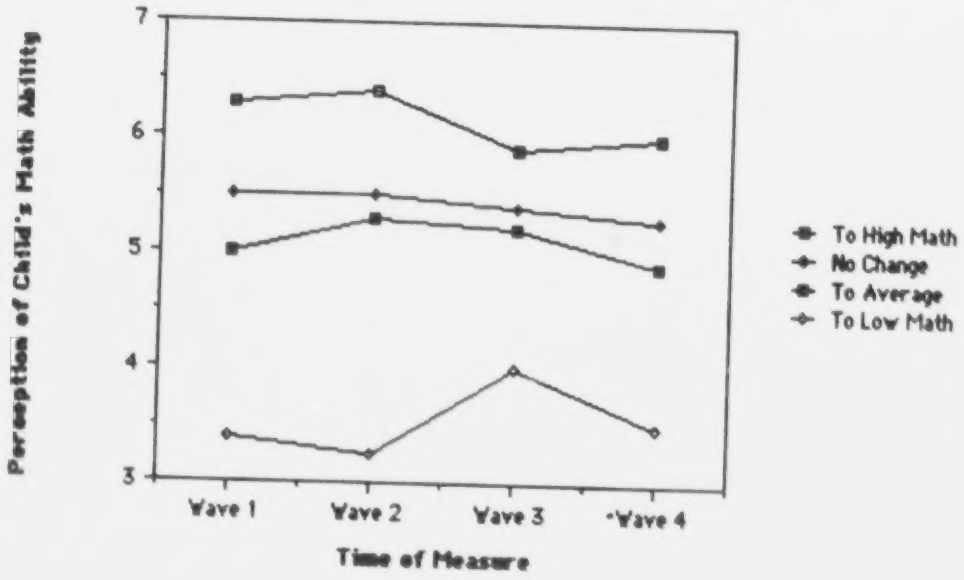


FIGURE 2. MOTHERS' MATH ABILITY RATINGS BY TEACHER RATING
(N=640)

Figure 3. Mother's Rating of Child's Math Ability



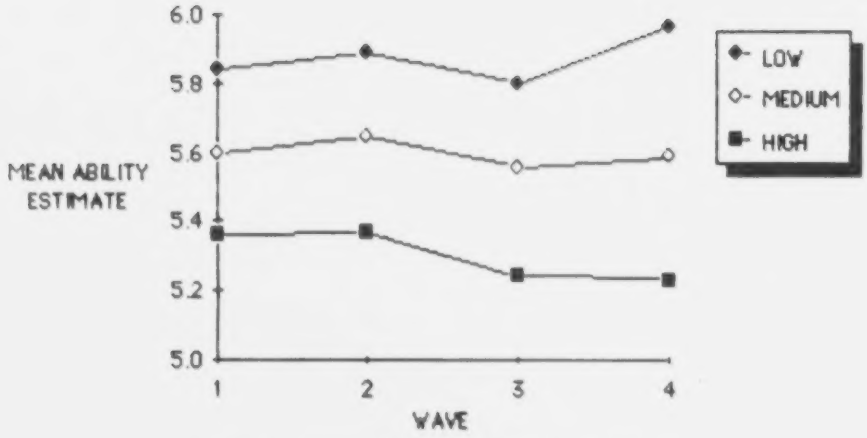


FIGURE 4. MOTHERS SOCIAL ABILITY RATINGS BY TEACHER RATING
(N=640)

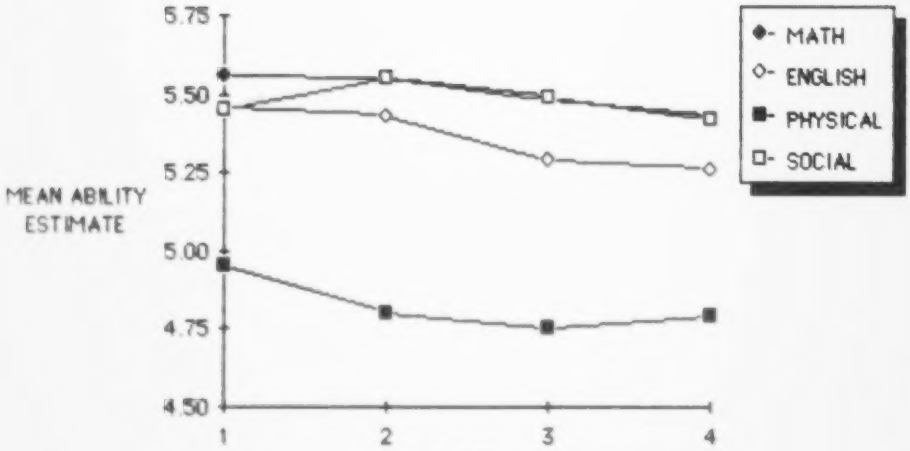


FIGURE 5. FATHERS' ABILITY RATINGS
(N=413)

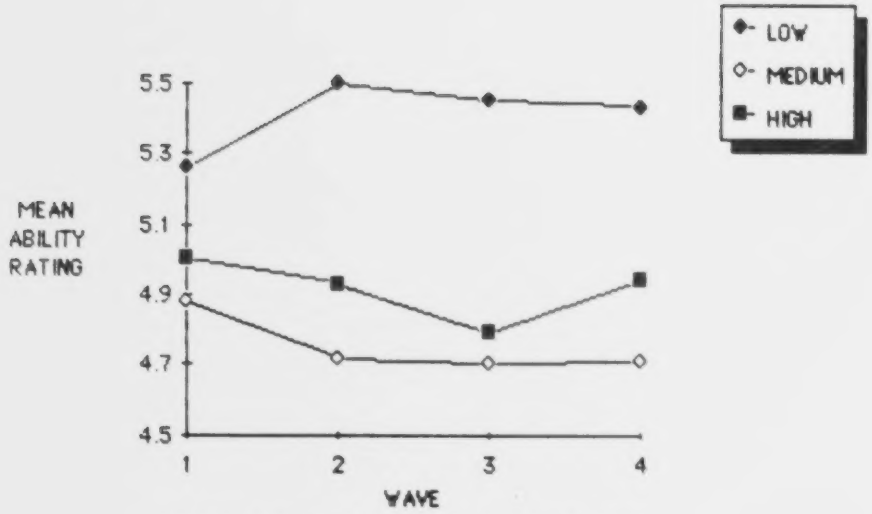


FIGURE 6. FATHERS' PHYSICAL ABILITY RATINGS BY TEACHER RATING (N=413)

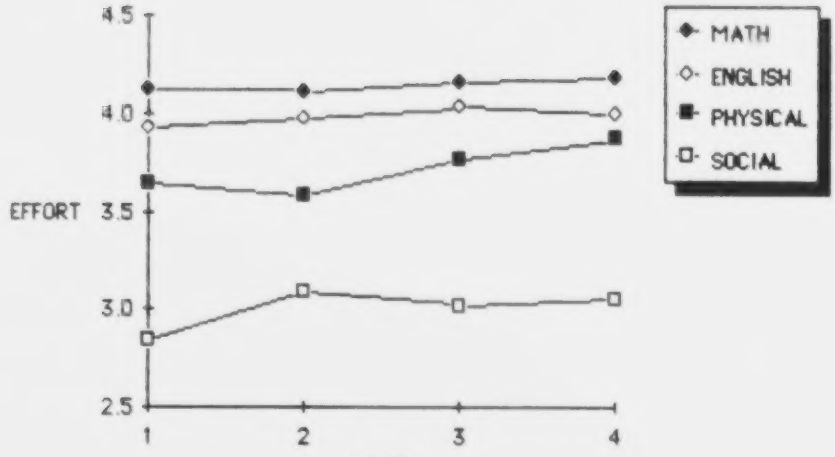


FIGURE 7. MOTHERS' RATINGS OF EFFORT
BY DOMAIN
(N=712)

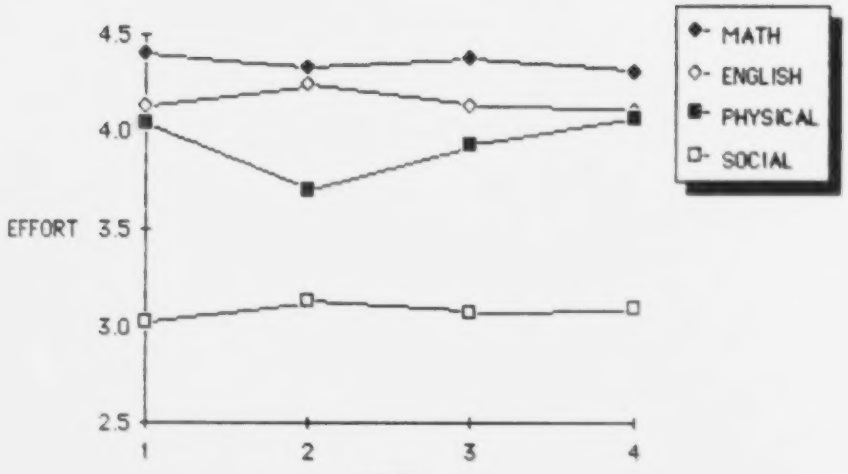


FIGURE 8. FATHERS' RATINGS OF EFFORT
BY DOMAIN
(N=420)

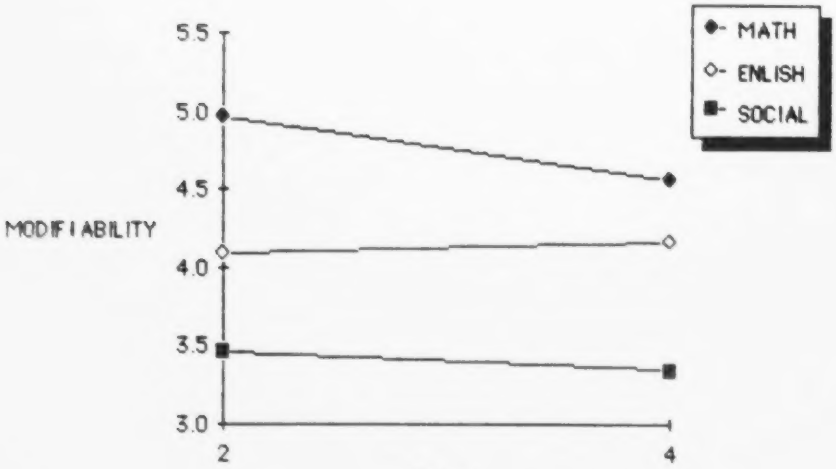


FIGURE 9. MOTHERS' RATING OF MODIFIABILITY OF ABILITY
(N=766)

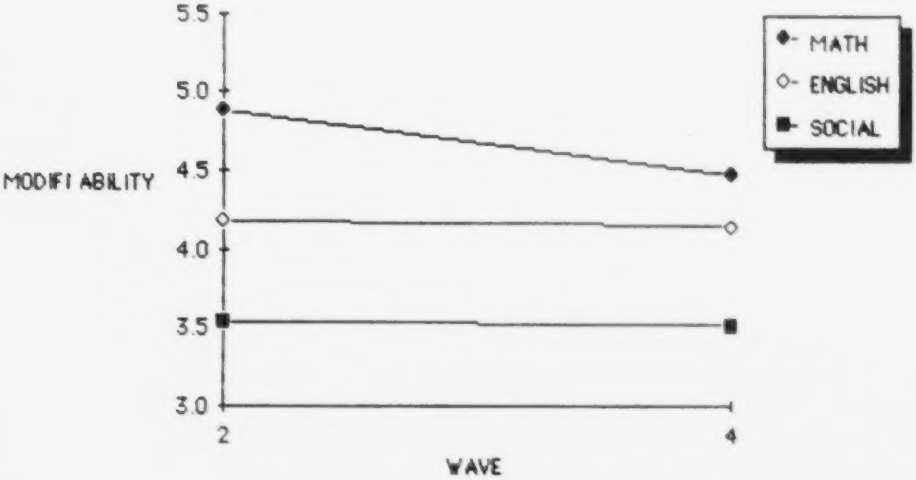


FIGURE 10. FATHERS' RATINGS OF MODIFIABILITY OF ABILITY BY DOMAIN
(N=473)

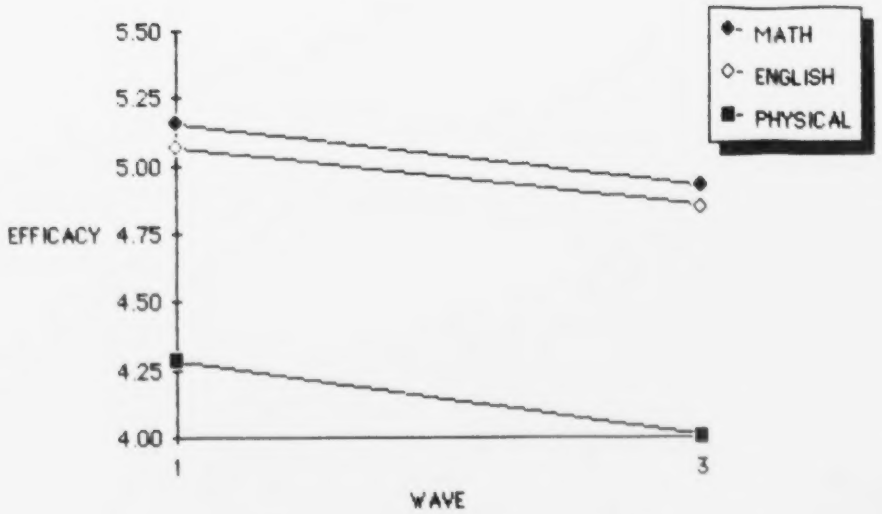


FIGURE 11. MOTHERS' RATING OF EFFICACY
BY DOMAIN
(N=966)

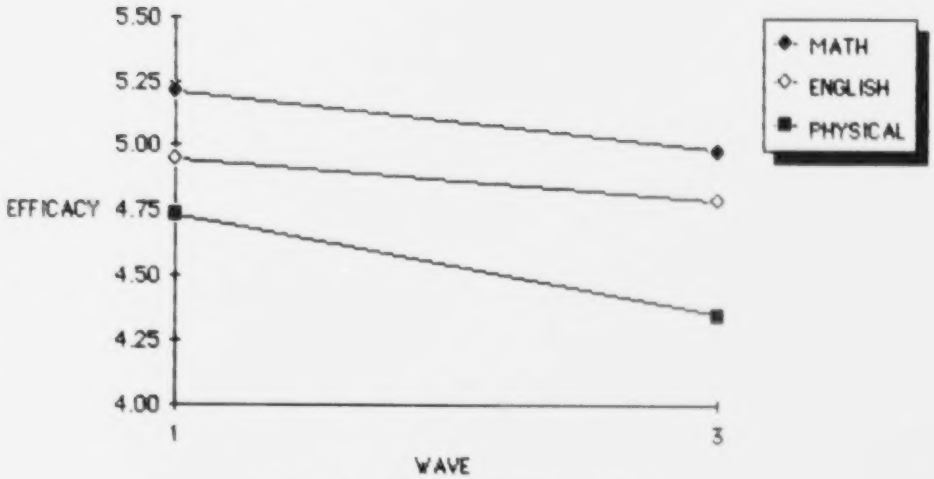


FIGURE 12. FATHERS' RATING OF EFFICACY
BY DOMAIN
(N=620)